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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,300

03/09/2005

Stephen Alfred Miranda

IPL-1US

2549

30901

7590

12/16/2010

GEORGE S. GRAY

P. O. Box 270190

CORPUS CHRISTI, TX 78427-0190

EXAMINER

FAULK, DEVONA E

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

12/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,300	Applicant(s) MIRANDA, STEPHEN ALFRED	
	Examiner DEVONA E. FAULK	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-37 is/are pending in the application.
- 4a) Of the above claim(s) 5-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,22-25,28 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 26,27,29,33-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, regarding the newly recited language of speaker arranged to couple vibrations from the speaker to bone of a wearer, filed 2/14/10, with respect to the rejection(s) of claim(s) 1-4 under 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bottesch

2. Claims 2-4 are cancelled.
3. Claims 5-20 are withdrawn.

Claim Objections

4. Claims 26,27,29, 33-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1,28,30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locarno et al. (US 6,298,249) in view of Lee et al. (US 6,668,065) in further view of Buttesch (US 5,323,468)..

Regarding claim 1, Locarno discloses a communication apparatus (Figures 1-6) comprising:

a support structure that is fastenable to a safety helmet (nape device 12; column 3, lines 36-43);

a vibration conduction microphone (bone microphone 18, Figure 1; column 3, lines 39-43); and

a speaker enclosure including a speaker and arranged to couple vibrations from the speaker to a wearer (speaker housing 97 houses speaker 20, Figures 1 and 5; column 6, lines 52-57; column 3, lines 40-46; the examiner asserts that the couple vibrations from the speaker to bone language is implicit) ; and

attachment means coupled to each of said microphone and said speaker enclosure to facilitate attachment to an item of headgear for placement of said microphone and speaker enclosure against a rearward portion of the wearer's head, in use (nape device 12; column 3, lines 36-43).

Locarno fails to teach of coupling vibrations from the speaker to bone of a wearer.

Bone conduction speakers are well known in the art as taught by Buttesch (abstract). It would have been obvious to modify Locarno so that the speaker is a bone conduction speaker for the benefit of providing high sound clarity in very noisy environments.

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All elements of claims 28,30 -32 are comprehended by the rejection of claim 1.

3. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locarno et al. (US 6,298,249) in view of Lee et al. (US 6,668,065) in view of Buttesch (US 5,323,468) in further view of Shinohara et al. (US 5,420,935).

Regarding claim 22, Locarno discloses a speaker enclosure and of a port (openings 100 through which sound waves from the ear speaker are transmitted to the ear of the user; Figure 5; column 6, lines 52-63). Locarno teaches that the speaker (20) may be a speaker of any type known to the art (column 3, lines 57-62). Locarno fails to explicitly teach that of a first region to couple vibrations from the speaker to bones of the wearer's head. Shinohara teaches of a first region to couple vibrations from the speaker to bones of the wearer's head (diaphragm 4, Figure 3, column 3, line 57- column 4, line 11). It would have been obvious to modify Locarno so that the speaker enclosure includes a first region as claimed for the benefit of providing sound to the user.

All elements of claim 23 are comprehended by the rejection of claim 22.

4. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locarno et al. (US 6,298,249) in view of Lee et al. (US 6,668,065) in view of Buttesch (US 5,323,468) in view of Shinohara et al. (US 5,420,935) in further view of Watson et al. (US 7,136,494)

Regarding claim 24, Locarno as modified teaches of an opening. Locarno as modified fails to teach of a membrane arranged on the housing to seal the opening thereby

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shielding the speaker from water. This concept was known in the art as taught by Watson. Watson teaches of covering an acoustic port with a windscreen to protect the transducer (claim 25; column 33, lines 20-25; claim 27, column 34, lines 3-10). It would have been obvious to modify Locarno as modified so that the acoustic port is protected by a membrane for the benefit of protecting the transducer from water (See Watson, claims 25 and 27).

All elements of claim 25 are comprehended by the rejection of claim 24.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVONA E. FAULK whose telephone number is (571)272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devona E. Faulk/
Primary Examiner, Art Unit 2614